

WHAT IS CLAIMED IS:

1. A homogeneous, boron-doped alkaline earth peroxide having a boron content of 0.5 to 5 wt.% and a peroxide content of about 75 wt.% or more, calculated based on the active oxygen content.

2. A homogeneous, boron-doped alkaline earth peroxide according to claim 1, wherein the alkaline earth peroxide is a calcium peroxide or an alkaline earth mixed peroxide.

3. A homogeneous, boron-doped alkaline earth peroxide according to claim 2, wherein the alkaline earth peroxide is a mixed calcium/magnesium peroxide.

3. A process for producing a homogeneous, boron-doped alkaline earth peroxide according to claim 1, said process comprising:

reacting an aqueous solution or suspension containing alkaline earth hydroxide and hydrogen peroxide, with

- sodium metaborate solution and aqueous hydrogen peroxide solution, or
- sodium metaborate solution, or
- boric acid, and

evaporating water to obtain a solid and drying the solid to obtain the homogeneous, boron-doped alkaline earth peroxide product.

4. A process for producing a homogeneous, boron-doped alkaline earth peroxide according to claim 1, said process comprising:

reacting an aqueous solution or suspension of calcium hydroxide and sodium metaborate solution with an aqueous hydrogen peroxide solution, and

evaporating water to obtain a solid and drying the solid to obtain the homogeneous, boron-doped alkaline earth peroxide product.

5. A process for producing a homogeneous, boron-doped alkaline earth peroxide according to claim 1, said process comprising:

reacting a calcium peroxide suspension with sodium metaborate solution and optionally with an aqueous hydrogen peroxide solution or with boric acid, and

drying the resulting reaction mixture to obtain a homogeneous, boron-doped calcium peroxide as a solid product.

6. A process for producing a homogeneous, boron-doped alkaline earth peroxide according to claim 1, said process comprising:

reacting an aqueous solution or suspension of a homogeneous, alkaline earth mixed peroxide with
sodium metaborate solution and aqueous hydrogen peroxide solution, or
sodium metaborate solution, or
boric acid, and

evaporating water to obtain a solid and drying the solid to obtain the homogeneous, boron-doped alkaline earth peroxide product.

7. A method of treating agricultural seed, said method comprising applying to said seed a treatment composition comprising a homogeneous, boron-doped alkaline earth peroxide.

8. A method according to claim 7, wherein said treatment composition comprises an oxygenating agent.

9. A method according to claim 7, wherein said treatment composition is a seed pilling composition.

10. A method according to claim 7, wherein said seed is sugar beet seed.